## GENERAL MOTORS CORPORATION

**EXECUTIVE ORDER A-006-1579** New Diesel or Incomplete Medium-Duty Vehicles Using Certified Engines

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: The following diesel or incomplete medium-duty vehicles (MDV) with a manufacturer's GVWR from 8501 to 14000 pounds are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

				<del>.</del>	E	NGINE DESCRIPTIO	N					
	ENGINE FAMILY 9GMXH06.6590		ENGINE Manufacturer		EMISSION STD CATEGORY 2	FUEL TYPE	STANDARDS	ENGINE SIZES (L)		CS & SPE	EF OBD	
MODEL YEAR							& TEST PROCEDURE					
	EXECUTIVE ORDER			AL MOTORS	CATEGORY	Diesel	FROCEDORE	6.6	D	DI, TC, CA	OBD(P)	
2009	A-006-1578		CORPORATION		ULEV		Diesel					
	ne, LPG o /ehicles C	r Alcohol		VEHICLE DESCRIPTION								<u> </u>
EVAPOR	RATIVE	FUEL TANK CAPACITY	VEHICLE MODEL		VEHICL	E MAKE & MODELS			VEH. OBD	ENGINE (L)	ENGINE MODELS / CODES	ENG. OBD
FAMILY	UL (K)	(gallons)	YEAR							```	(rated power, in hp)	
*	*	*	2009	CK20: Chevrolet CK25 HD Silverado; GMC CK25 HD Sierra CK30: Chevrolet CK35 HD Silverado / HD Silverado Cab Chassis; GMC CK35 HD Sierra / HD Sierra Cab Chassis						6.6	LMM / 1 (365)	OBD(P)
*	•	*	2009	G20: Chevrolet Express 2500; GMC Savana 2500 G30: Chevrolet Express: 3500 / Passenger Van 3500 / Commercial Cutaway OBD(P) 3500; GMC Savana 3500 / Passenger Van 3500, Special Cutaway 3500							LMM / 6 (250)	OBD(P)

\*=not applicable; GVWR=gross vehicle weight rating; 13 CCR xyz=Title 13. California Code of Regulations, Section xyz; 40 CFR 86.abc=Title 40, Code of Federal Regulations, Section 86.abc;
L=liter; hp=horsepower; kw=kilowatt; EF=engine family;
CNG/LNG=compressed/liquefied natural gas; LPG=liquefied petroleum gas; E85=85% ethanol fuel; MF=multi fuel a.k.a BF=bi fuel; DF=dual fuel; FF=flexible fuel;

SULEV / ULEV / LEV=super ultra / ultra / low emission vehicle;

3 ECS=emission control system; TWC/OC=three-way/oxidizing catalyst; WU (prefix) =warm-up catalyst; DPF=diesel particulate filter; PTOX=periodic trap oxidizer; HO2S/O2S=heated/oxygen sensor; HAFS/AFS=heated/air-fuel-train sensor (a.k.a., universal or linear oxygen sensor); TBI=throttle body fuel injection; SFVMFI=sequential/multi port fuel injection; DGI=direct gasokine injection; GCARB=-gaseous carburetor; IDVD=indirect/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direct/direc

Following are: 1) the FTP exhaust emission standards or family emission limit(s) as applicable under 13 CCR 1956.8; 2) the EŬRO and NTE limits under the applicable California exhaust emission standards and test procedures for heavyduty diesel engines and vehicles (Test Procedures); and 3) the corresponding certification levels, in g/bhp-hr, for this engine family. "Diesel" CO, EURO and NTE certification compliance may have been demonstrated by the manufacturer as provided under the applicable Test Procedures in lieu of testing. (For dual- and flexible-fuel, the CERT values in brackets [] are those when tested on conventional test fuel.)

	NMHC		NOx		NMHC+NOx		СО		PM		нсно	
	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO	FTP	EURO
STD	0.14	0.14	*	*	*	*	15.5	15.5	0.01	0.01	0.050	0.050
FEL	+	*	1.30	1.30	1.3	1.3	*	*	*	*	*	*
CERT	0.04	0.00	1.13	1.07	1.14	1.07	0.4	0.10	0.000	0.000	0.000	0.003
NTE	0.21		1.95		2.0		19.4		0.02		*	

\* g/bhp-hr=grams per brake horsepower-hour; FTP=Federal Test Procedure; EURO=Euro III European Steady-State Cycle; NTE=Not-to-Exceed emission limit; STD=standard or emission test cap; FEL=family emission limit; CERT=certification level; NMHC/HC=non-methane/hydrocarbon; NOx=oxides of nitrogen; CO=carbon monoxide; PM=particulate matter; HCHO=formaldehyde;

BE IT FURTHER RESOLVED: Certification to the FEL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

BE IT FURTHER RESOLVED: The listed engine models have been certified to the optional emission standards and test procedures in 13 CCR 1956.8 applicable to diesel or incomplete MDV with a 8501-14000 pound GVWR and shall be subject to 13 CCR 2139(c) (in-use testing of engines certified for use in diesel or incomplete MDV with a 8501-14000 pound GVWR).

BE IT FURTHER RESOLVED: The listed engine models have been certified to the split engine family standards under 13 CCR 1956.8(b) [diesel engines] or 13 CCR 1956.8(d) [OTTO engines] and the incorporated 40 CFR 86.007-15(m)(9).

BE IT FURTHER RESOLVED: For the listed vehicle models the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR 1965 (emission control labels), 13 CCR 1968.2 (on-board diagnostic, full or partial compliance), 13 CCR 1976(b)(1)(B)-(C) or 13 CCR 1976(b)(1)(F) {evaporative standards}, 13 CCR 2035 et seq. (emission control warranty), and 13 CCR 2235 [fill pipes and openings of motor vehicle fuel tanks]. (The braces {} are for gasoline, LPG or alcohol fueled vehicles only.)

Vehicles certified under this Executive Order shall conform to all applicable California emission regulations. The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this day of April 2008.

nnette Hebert, Chief

**Mobile Source Operations Division**